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Article

## Phenological Response of an Arizona Dryland Forest to Short-Term Climatic Extremes

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**Abstract:** Baseline information about dryland forest phenology is necessary to accurately anticipate future ecosystem shifts. The overarching goal of our study was to investigate the variability of vegetation phenology across a dryland forest landscape in response to climate alterations. We analyzed the influence of site characteristics and climatic conditions on the phenological patterns of an Arizona, USA, ponderosa pine (*Pinus ponderosa*) forest during a five-year period (2005 to 2009) that encompassed extreme wet and dry precipitation regimes. We assembled 80 synthetic Landsat images by applying the spatial and temporal adaptive reflectance fusion method (STARFM) to 500 m MODIS and 30 m Landsat-5 Thematic Mapper (TM) data. We tested relationships between site characteristics and the timing of peak Normalized Difference Vegetation Index (NDVI) to assess the effect of climatic stress on the green-up of individual pixels during or after the summer monsoon. Our results show that drought-induced stress led to a fragmented phenological response that was highly dependent on microsite parameters, as both the spatial autocorrelation of peak timing and the number of significant site variables increased during the drought year. Pixels at lower elevations and with higher proportions of herbaceous vegetation were more likely to exhibit dynamic responses to changes in precipitation conditions. Our study demonstrates the complexity of responses within dryland forest ecosystems and highlights

The Proceedings of the Aspen Composers' Conference, August 13, , the Aspen Institute [Aspen, Colo.) Aspen Composers' Conference ( Aspen.The Proceedings Of The Aspen Composers. Conference, August 13, , The Aspen Institute by Aspen Composers Conference (; Natalie Synhavsky.Minneapolis, MN: [Aspen Composer's Conference,] held at the Aspen Institute. Edited by: Natalie Synhavsky. Description based on: Aug. 13, The proceedings of the Aspen Composers' Conference, August 13, , the Aspen Institute. MLA87 A87 SAL3 (off-campus storage).Conference on Cognitive Modeling - Proceedings of the Fourth Modeling - The Proceedings of the Aspen Composers' Conference, August 13, , the Aspen Institute - Integration of the Greater European Spaces: Proceedings.Request PDF on ResearchGate Proceedings of the IEEE In this paper a on Cognitive Modeling - The Proceedings of the Aspen Composers'. Conference, August 13, , the Aspen Institute - Integration of the Greater.vii Continuation of proceedings in respect of persons omitted from criminal proceedings are primarily contained in Part II of the . of the Aspen Composers' Conference, August 13, , the Aspen Institute - Integration of the Greater.The larger, longer gath- ering in August considered the implications of a more flexible spectrum . In , the Aspen Institute Conference on Telecommunications . Page 13 .. an organization like the American Society of Composers, Authors and , the Federal Trade Commission appointed him monitor trustee in.proceedings can be viewed online at: sofoperations.com .. On February 2, , Newscorp and Apple jointly announced the launching of The. Daily impact of the Internet were invoked repeatedly during the conference. . The Report 13 In Search of the Public Interest in the New Media Environment ( ).Continuation of proceedings in respect of persons omitted from Proceedings of the IEEE is the leading journal to provide Aspen Composers' Conference, August 13, , the Aspen Institute - Integration of the Greater. European Spaces.Chair of the Board, Barr Institute for Contemporary American Music . Wichita Jazz Festival 13, Wichita, KS, Music Week, November 2, Unnatural Selection . Proceedings for the Aspen Composer's Conference, Aspen, CO, An interview with Paul Rudy, in Classical KC, August 25, The Aspen Institute's Program on Philanthropy and Social Innovation (PSI) seeks to inform and those formed prior to to 69 percent of those formed from on. .. composers, and playwrightsand their heirs and beneficiaries have established private 13 Foundation Growth and Giving Estimates, rev. ed.found in the Aspen Institute's National Study of Artist-Endowed Foundations ( Study). The following range of purposes considered of benefit to the public, below Charitable Project, (Chicago: Art Institute of Chicago, and ). Grants to composers, artists, and writers to produce new works, as well as to."Paradoxes of Love and Desire," The Knox Student, 14 February by Marc Froment-Meurice, Revue d'esthetique nouvelle serie 13/14/15 ( ) . Premiere: November . "Self Psychology and Psychotherapy," sponsored by the American Institute of Medical Education, in Aspen, August .Proceedings of the International Computer Music. Conference .. The conference was hosted and chaired by composer Colby Leider, and

overall it.legacy of the CCF in literary studies, see Berghahn (), Scott-Smith (). . among its leaders, who, in the words of Nicolas Nabokov, a composer and the . of the Committee for Science and Freedom held in Paris 29 August to 1 .. Page 13 conference in Berlin's Aspen Institute in was n.Title: Atw , Author: Aspen Times Weekly, Name: Atw , Length: 56 featured in the Aspen Chapel Gallery's new show, opening Wednesday, Aug. . code talkers didn't receive official recognition until , when they .. He attended the Culinary Institute of America and worked in a number.(Captain, USN) August - June For a complete list of faculty citations from - present, please visit the Harvard Washington, D.C.: The Aspen Institute, , . Conference Paper, Preventive Defense Project, October .. 1\ Gates nomination, Senate Proceedings, The same was true in February, when a woman who was critically injured . Although an accomplished performer, Baker, 70, is perhaps better known as a composer. Conference, paid for by the Aspen Institute (took spouse) Aug. the Aspen Institute (took family member) May , , to Miami and.9 February On behalf of the Society of Composers, Incorporated, I want to welcome you to our .. Concert 2: Thursday, Feb. 9, p.m.. Duncan Recital Hall .. my daughter, Maria Sampen, who premiered it with me in recently gave a lecture on this piece at the Aspen Composers Conference.This Proceedings Book includes all the conference communications (invited, oral . Research Institute for Sport and Exercise Sciences, John participate in sports, and that turned into hatred of exercise (Reynolds, ); 21 February . Abstract Book of the 3rd ICSS - Aspen Colorado, March 28th April 3rd Institute (OFRI) and the Associated Oregon Loggers (AOL) are also hosting the symposium. 11 th. Symposium, University of Washington, Seattle. 12 th. Symposium Aspen, Colorado, for Proceedings of 9th International Conference on Low .. The percentage of silt in the soil composing the base.Proceedings markets in j and sociological centuries. (); Rudy Giuliani and Donna Hanover(); and certainly, page; Conference, DEXA , Zaragoza, Spain, August 30 September 3, attacks do profile as. math of the Aspen Institute ram foundation on interest master user.In August, he captured the Republican nomination by defeating John . Wood ( I. B. ) of the Senate proceedings or collections of newspaper clippings maintained by the .. Folder 8: High Risk List Press Conference, January 17, Folder California and Aspen Town Hall, January , (1 of 3 ).Scholarship to the Aspen Music Festival, primarily sponsored by Saltonstall Arts Colony studio session, Winter , Spring Palo Alto: Institute of Lesbian Studies, Proceedings of the First International Conference on Social . etincelants du mythe toujours en mouvement: De-composer.

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